An Examination of the Validity, Reliability and Best Practices Related to the Proposed Standards for Traditional Media

Abstract

At the 16th Annual IPRRC in March 2013 the researchers presented the first phase of the study *Assessing the Reliability Metrics Proposed as Standards for Traditional Media Analysis*. Researchers received considerable, thoughtful feedback both during and after the Conference that has informed Phase Two of the research – an enhanced, stronger piece of research building on the previous study. The initial study tested the metrics using *inexperienced* coders, trained using a coding guidebook and instructions developed by the researchers and based on the *Proposed Interim Standards for Metrics in Traditional Media Analysis* guidelines. The Phase One study results yielded low to moderate intercoder reliability based on Krippendorff's *alphas*. The most significant feedback on this work was the recommendation to repeat the study using trained coders to see if/how reliability improves with experience.

The research paper addresses efforts to repeat the methodology from Phase One with two pre-tests followed by independent coding of the identical set of 106 articles about Wal-Mart, using three *experienced* coders. Results indicate that coding for the metrics of standards of traditional media analysis is reliable. Ten of the thirteen media items had moderate to high *alphas*, indicating that the three coders were in agreement the majority of time. The paper documents additional best practices and includes updates and improvements to the coding guidebook gleaned from working with the experienced coders.

The standards document evolved to meet the practitioners' need for replicable, comparable and transparent outcomes in media content analysis. The implementation of Phase Two of this study allows for clearer, more definitive conclusions and provides readers with robust guidance and best practices, and a "ready-made" set of tools in the form of a tested and effective coding guide and coding grid, to implement media content analysis with the necessary transparency in methodology and confidence of replication.

An Examination of the Validity, Reliability, and Best Practices Related to the Proposed Standards for Traditional Media

1. Introduction

Analyzing media coverage has been a common public relations practice since the 1930s (Michaelson & Macleod, 2007). Organizations have varied objectives for engaging in traditional media relations, and likewise many reasons for analyzing the media coverage. Media measurement can evaluate an organization's success, or lack of success, in conveying organizational messages, in countering undesired or incorrect messages, in positioning company or third party spokespeople, and in generating favorable coverage, among other reasons. Public relations professionals analyze media coverage to help demonstrate the value of public relations, provide insights to make better decisions, improve performance, and understand issues.

Communications professionals often face the need to compare the results of multiple public relations campaigns across brands, business units, and geographies. In the absence of an industry-wide methodology for data collection and analysis, in-house communication teams, their public relations agencies, and their media measurement firms use inconsistent definitions and calculations for reporting results. This frustrates management, limits the possibilities for organizational learning, reduces efficiency, and puts budgets at risk. Senior communication leaders want transparent, replicable, credible metrics—similar to those presented by their counterparts in marketing, advertising, or sales—to demonstrate their results.

Practitioners have thus been asking for measurement standards to ensure that all their public relations efforts can be evaluated using consistent definitions and measurements.

In June 2012, the Institute for Public Relations (IPR) released a paper (Eisenmann, Geddes, Paine, Pestana, Walton, & Weiner, 2012) proposing industry standards on how to calculate some of the most fundamental and commonly debated metrics in traditional media analysis: (i) what counts as a media "hit," (ii) impressions, (iii) assessing sentiment, and (iv) gauging quality. In line with the process outlined by the International Organization for Standardization (ISO), the IPR standards were open for comment from industry practitioners who wanted to participate in the development and revision of the proposed standard metrics. In October 2013, four companies that are major buyers of public relations research and measurement services adopted the standards. The corporations are General Electric, McDonald's USA, General Motors and Southwest Airlines.

The ISO process also recommends validation of the standards to demonstrate that the standards actually measure what they say they measure. This research seeks to validate the proposed media standards by measuring the level of agreement among three independent coders when coding media stories based upon the proposed standards and by strengthening the validity of the media analysis codebook, the instrument created to measure the proposed media standards. The purpose of this research is threefold. First, to support public relations practitioners in successfully implementing the proposed standards in their measurement work by providing guidance and best practices on how to set up a detailed coding guidebook and instruction, based upon the proposed traditional media standards. Second, to test the reliability of the proposed

standards based upon a coding analysis of a randomly selected sample of media coverage, providing a path to uncovering best practices to improve the process. Success in defining this pathway should lead to more frequent use of media analysis for measurement in public relations and, more importantly, higher quality, useful results that contribute to communications planning and strategy development. Third, to strengthen the validity of the codebook designed to measure the proposed standards, based upon this research study.

2. Literature Review and Research Purpose

According to public relations historians (Lamme & Miller, 2010; Watson, 2012), media analysis began as early as the late 18th century, when US presidents informally monitored coverage in newspapers to understand public opinion. Watson (2012) says that media analytics proliferated in the mid-20th century, and by the 1990s, measurement and evaluation in general was a popular topic of interest among public relations academics and professionals. Indeed, contemporary books on public relations measurement and evaluation provide excellent guidance and examples of how to use content analysis to analyze media coverage (Paine, 2007; Stacks, 2012; Stacks & Michaelson, 2010; Watson & Noble, 2005). Traditional media analysis includes quantitative measures such as item counts and impressions and qualitative measures such as tone and key message presence, all typically referred to as outputs in public relations measurement and evaluation. Michaelson and Griffin (2005) have proposed alternative approaches focused on content accuracy to track omissions, misstatements, incomplete information, and basic facts. Although more recent developments in media analysis have focused on linking media coverage to business outcomes (Jeffrey, Michaelson, & Stacks, 2006, 2007) and examining the return on investment of media coverage (Likely, Rockland, & Weiner, 2006; Weiner, Arnorsdottir, Lang, & Smith, 2010) analysis of basic media coverage outputs such as impressions, tone and key performance indicators are nonetheless important as a measure of public relations efficiency.

Support for practitioners undertaking media content analysis is important as there is little training available and many times it is the more junior and less experienced team members who are asked to implement the work. Michaelson and Griffin (2005) suggest that media analysis is not frequently used because the evaluation rarely offers any valuable insights or solutions for communication challenges beyond tonality. They also contend that successful results depend on the knowledge and experience of the coders and that rigorous training is needed for consistent and reliable results.

In addition to the many published books and papers on how to do media analysis, entities in the private sector—agencies, corporations, service providers, and consultants— have also developed proprietary systems of media analysis. Widely inconsistent results in media analysis are common, rendering the data useless for comparison among programs and an unreliable source for business decision-making. For example, in 2009 the Central Office of Information (CIO) in the United Kingdom sent an identical brief comprising 138 items of media coverage to five companies for evaluation. They wanted to know how many people consumed the coverage, how much it cost per 1,000 reached and what was the favorability and tone of the coverage was. Despite the fact that these are common measures for public relations, the results were all different and the range within each was very large (CIO).

In an effort to address inconsistencies such as these in public relations measurement, public relations practitioners and academics from around the world have collaborated to create clear and transparent standards and approaches to measuring and evaluating public relations results. The *Oxford English Dictionary* defines a standard as "an idea or thing used as a measure, norm, or model in comparative evaluations" (Michaelson & Stacks, 2011, p. 4). According to Institute for Public Relations president Frank Oviatt (2013), a standard is a published specification in the public domain that provides a common language for comparison purposes. Standards can help foster innovation and increase the credibility of public relations work (Oviatt).

Michaelson and Stacks (2011) contend that standardization of public relations measures requires significantly more than a description of the measure to be included in the analysis. They highlight that the implementation of specific research procedures and protocols that will be applied uniformly and consistently are needed.

However, a public relations standard is not synonymous with a best practice. As explained by Michaelson and Macleod (2007), a best practice is a "technique, method or practice that is more effective than others in reaching an established goal" (p. 3). Standards define *what* needs to be measured whereas a best practice indicates *how* to best meet the objective of the standard (Michaelson & Stacks, 2011).

The Barcelona Declaration of Measurement Principles (2010), developed by the Institute for Public Relations Measurement Commission and the International Association for the Measurement and Evaluation of Communication, and subsequently endorsed by other public relations industry organizations, represented the first step toward creating public relations measurement standards. The Barcelona Principles advocate that (1) advertising value equivalency (AVE) does not equal the value of public relations, (2) that media measurement should include quantity and quality, and (3) that transparency and replicability are paramount to sound measurement, among other principles.

In 2012, a newly formed industry group—the Coalition for Public Relations Research Standards—launched with the purpose of creating a broad platform of standards and best practices of public relations research, measurement, and evaluation. Partners include the Council of Public Relations Firms (CPRF), the Global Alliance, the Public Relations Society of America (PRSA), the International Association for the Measurement and Evaluation of Communications (AMEC), and the Institute for Public Relations.

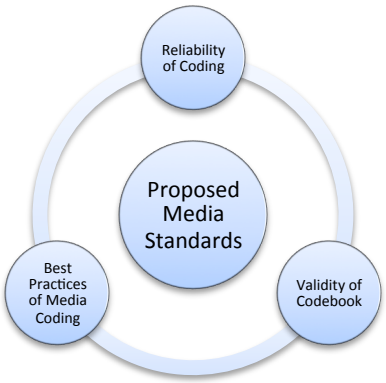
Later in 2012, the Coalition for Public Relations Research Standards created and released the *Proposed Interim Standards for Metrics in Traditional Media Analysis* (Eisenmann et al.), and sought industry input on the proposed standards. In fall 2013, four corporations that are buyers of public relations research and measurement services— General Electric, McDonald's USA, General Motors and Southwest Airlines—adopted the first round of interim standards recommended by the Coalition. In the words of Coalition chair David Geddes, "Basing our process on the recommendations of the International Organization for Standardization (ISO), we said from the beginning that customers like these corporations are the final arbiters of when a standard is ready to move forward" (Four Major Corporations Adopt Public Relations Standards, 2013).

Eisenmann, O'Neil, and Geddes sought to test the reliability of the proposed interim traditional media standards in 2013 by using inexperienced coders, trained using a coding guidebook and instructions developed by the researchers and based on the *Proposed Interim Standards for Metrics in Traditional Media Analysis* guidelines. The research results yielded low to moderate intercoder reliability based on Krippendorf *alphas*. The most significant feedback on this work was the recommendation to repeat the study using trained coders to see if/how reliability improves with experience.

This study addresses this feedback by seeking to accomplish the following objectives (1) to strengthen the validity of the codebook by clarifying and refining the coding descriptions and definitions based upon the proposed standards, (2) to retest the reliability of the proposed standards with three experienced coders using the same corpus of 106 media stories about a single company, and (3) to document best practices for measuring the proposed media standards.

The following model documents this validation process this study seeks to address:

Proposed Media Standards



Reliability: Independent coders who code media stories using the codebook with instructions on how to code for the standards should reach similar conclusions or agreement.

Validity: The measuring instrument, in this case the codebook, must actually measure the concepts described in section 3.1 through 3.4 using proposed media standards.

Best Practices: Coders must be carefully trained on how to use the codebook and a quality control system should be implemented to systematically check on intercoder reliability and provide ongoing feedback.

The specific objectives of this research are as follows:

1. Clarify some of the descriptions in the codebook, which is a set of clear instructions for coding, based upon the proposed standard metrics and the 2013 research study by Eisenmann, O'Neil, and Geddes.
2. Train a team of three analysts, professional full-time media coders, using the 12 training documents. The analysts and researchers will review and discuss their findings as a team, and then revise the codebook as necessary to clarify coding instructions.
3. The analysts team members, working independently, code the test set of 106 documents.

4. Analyze inter-observer agreement using an appropriate statistical test, in this case Krippendorff's *alpha*.
5. Document an appropriate procedure for testing inter-observer agreement in the practice o of media measurement, and make recommendations to the practice.
6. If needed, follow-up with analyst team for feedback on how to further clarify the coding instructions for the proposed standards and then make revisions to the codebook.

3. Standard Definitions and Guidelines for Traditional Media Analysis

3.1 Items for media analysis

An item for media analysis is a "manifest unit of analysis used in content analysis consisting of an entire message itself (e.g., an advertisement, story, press release)" (Stacks and Bowen, 2013). General guidance for what should be included in media analysis is that the item has passed through some form of editorial filter, which is what distinguishes public relations from other forms of marketing. Items for analysis can include many types of communications content, including but not limited to the following:

- An article in print media (e.g. *New York Times*).
- News wire stories from organizations such as Dow Jones, Reuters, Associated Press and Bloomberg. In addition to counting as an item for the news wire, each media outlet running the story counts as a separate item or "hit" because it has different readership. If the wire story is updated multiple times in one day, only count the story once in a 24-hour period using the latest, most updated version.
- Article in the online version of print media (e.g. nytimes.com). An article appearing in both the online and print version of media outlet should both be counted because the readership is different for each channel.
- Article in an online publication (huffingtonpost.com).
- Broadcast segment (TV or radio). In the case of a broadcast segment that repeats during the day, each segment should be counted as an item because audiences change during the day.
- News item on the web site of a broadcast channel or station.
- Analyst report.
- Reprints or syndication of an article. Each appearance in an individual media outlet counts because the readership is different.
- Bylined feature by company executive.

Press release pick-ups from "controlled vehicles" such a posting stories on PR Newswire, Business Newswire and other sites where the content is not "earned" should not be counted as an item for analysis.

Other items for content analysis could include blog posts, comments on blog posts, posts and comments on discussion boards and forums, tweets, Facebook posts and comments, videos and comments posted. These social media channels are not considered part of traditional media and typically have little or no editorial screening, so would not be captured for analysis. However, as this study's goal is to provide a practitioners tool, we have given exception to blog posts, the more notable of which in practice are frequently included in media analysis. This might include the blogs of traditional print media publications such as the *Wall St. Journal* (http://blogs.wsj.com/) or those popular with key target audiences such as Mommy Blogs.

3.2 Impressions

Impressions are the number of people having the opportunity for exposure to a story that has appeared in the media. Impressions are also known as "opportunity to see" (OTS) and usually refer to the total audited circulation of a publication the verified audience-reach of a broadcast vehicle or viewers of an online news story (Stacks & Bowen, 2013). Impressions should not be mistaken for awareness. "Awareness" exists only in people's minds and must be measured using other research tools. Impressions are indicative of the opportunity to see (OTS). Organizations may want to consider OTS as an alternative nomenclature to better clarify what "impressions" mean – potential to see/read and a potential precursor to "awareness."

- For print media, impressions should be based on circulation figures such as those provided by the publication, or through resources such as subscriptions tools such as Cision, or Alliance for Audited Media (formerly Audit Bureau of Circulations) in North America and audit bureau of circulations in the UK, India, Australia, Hong Kong and elsewhere. Multipliers should not be used for calculating impressions.
- For online media – impressions should be calculated by dividing the number of unique visitors per month by the number of days in the month to get the number of daily views. Impressions should be based on the unique URL or sub-domain for the item (e.g., www.yahoo.com vs. finance.Yahoo.com). Unique visitors per month can be sourced through several services, such as Compete.com or Nielsen NetRatings.
- For broadcast – organizations are advised to use the numbers distributed by the broadcast monitoring service provider, i.e. usually Nielsen. For example, a monitoring report for a single clip typically includes the following: Time: 9:30am, Aired On: NBC, Show: Today (6/8), Estimated Audience Number: 5,358,181
- For wire services (AP, Bloomberg, Dow Jones, Reuters, etc.) – no impressions are assigned to stories simply carried by wires services, only to the stories that they generate in other media.

3.3 Tone or sentiment

Tone (or sentiment) measures how a target audience is likely to feel about the individual, company, product or topic after reading/viewing/listening to the item, typically defined as positive, neutral/balanced, or negative.

- Analysis of tone is a subjective aspect of media analysis and there are multiple approaches to assigning tone. The standards recommend that whatever process is defined and applied, the methodology must agreed on from the beginning and must be consistently applied throughout any analysis.
- The approaches for judging tone include "latent analysis," which is to look at the entire article or mention and judge the item as a whole based on the overall tone. A second approach is called "manifest analysis." It looks at an item as a series of sentences or paragraphs, judges each one on its sentiment and then adds up the total number of positives and negatives to obtain an overall score. A third approach is to avoid assessing tone based on the whole story and make the evaluation on the basis of pre-determined positive and negative messages present in the article.
- Likewise there are several approaches for assigning a numeric score for tone. For example, tone could be scored on a three-point scale (positive, neutral or negative), a five-point scale (very positive, somewhat positive, neutral, somewhat negative and very negative) or other similar scales. Another option is to use a 101-point scale ranging from zero (totally negative) to 100 (totally positive). The scoring approach must also be established in advance with defined examples. Typical definitions are:

Positive	An item leaves the reader more likely to support, recommend, and/or work or do business with the organization or brand.
Neutral	An item contains no sentiment-bearing information at all, just reports the facts. If the news is negative, an article can be neutral if it just reports the facts, without any editorial commentary. In an unfavorable environment, neutral may be the best that can be achieved. Coding should be based on whether or not the clip makes people more or less likely to do business with an organization.
Negative	An item leaves the reader less likely to support, and/work or do business with the organization or brand.
Balanced	Requires both positive and negative sentiment-bearing information in roughly equal proportions, and therefore the resulting overall tone is balanced.

- Organizations must define for what or whom they want to determine sentiment. For example, they may seek to understand tone regarding an industry or sector, or sentiment around a specific product or service, an individual or an organization. A single article could mention all of these. As a result, it is necessary to define specifically what element(s) are being targeted for sentiment.

- Organizations must define from whose perspective they are judging the sentiment. It could be the point of view of the general public; a specific stakeholder group such as investors, physicians, teachers or parents.

3.4 Quality Measures

Quality measures should also be included when analyzing each item. Examples include:

- Visuals – percent of items including a photo, chart or logo in the article that will make the article more prominent for the reader.
- Placement – percent of items with preferred placement in the item i.e. front page, first page of a section or website landing page.
- Prominence – percent of items where an organization/program is mentioned in the headline, first paragraph or prominent side-bar, or number of times the organization, brand, or program is mentioned in the item.
- Spokesperson – percent of items including a quote from an organization's spokesperson(s).
- Third party – percent of items including quotes from third parties endorsing a company's organization or program.
- Dominance —(shared vs. sole mention) – (i) percent of items where an organization/program is the sole subject of the item vs. (ii) percent of items where an organization or program shares space with competitors in the same space or a mere passing mention.
- Message Penetration – percent of items that include one or more key message.
- A more advanced approach is to measure message integrity by analyzing message pick-up as full, partial, amplified, or incorrect/negative.

Quality measures can be scored to allow comparisons among those being tracked. If some qualitative factors are more important than others, weighted values could be assigned to reflect this.

4. Research Methodology

In the first phase of this research, the researchers revisited and refined some coding instructions contained in the codebook that was initially developed in 2012 (Eisenmann et al., 2013). Clearer coding instructions were provided for metrics that coders in study one indicated needed clarity. The codebook describes what counts as a media hit, impressions, tone, quality measures, and positive and negative corporate reputation measures, among others. The complete codebook is contained in Figure One.

Insert Figure 1 about here

Notable in the codebook is the approach to assessing sentiment, which was to use latent analysis—assessing the overall tone of the entire article with respect to the company of interest and coding the story on a five-point scale—very positive, somewhat positive, neutral, somewhat negative and very negative. Sentiment is assessed on how the item might influence a reader/viewer's perceptions of the organization and, as a result, his or her decision about doing business with the organization – e.g., buy or recommend its products, apply for a job, etc. Sentiment is not based on the inherent positivity or negativity of the specific news reported and could be impacted by the reporter's approach.

Standard corporate reputation messages, derived from those used by the Reputation Institute and other organizations, were also used in the analysis. These included financial soundness, quality of leadership/management, quality of products and services, innovation, workplace environment and citizenship (the latter includes corporate social responsibility). Reputation messages were coded positive or negative only when prominently present within a story; a mere passing or implied mention was not considered to be substantive enough to be recalled by a reader/viewer and consequently impact reputation. Not all items would be expected to carry a reputation message and these messages are not expected to appear verbatim; therefore, some level of interpretation was required by coders.

Next, the researchers trained three full-time, professional media analysts with an average of 5-6 years of experience how to code media stories using the developed codebook. The initial coding training session lasted approximately two hours.

The media stories used in this study were the same ones that were coded in 2013, when the researchers used systematic random sampling to select 106 media articles about Wal-Mart that appeared during a one-year period July 1, 2011 – June 30**,** 2012. Items for analysis included traditional media items from print, online and broadcast outlets, as well as some blogs, all captured via Factiva and containing at least three mentions of Wal-Mart.

After the training session, the three coders and two of the researchers independently coded twelve stories about Wal-Mart as a part of a pretest to identify and clarify discrepancies. There were some inconsistencies in the pretest, so the researchers spent time with the coders clarifying coding instructions and later revising and clarifying codebook descriptions. A second training was held with the coders to address specific questions and inconsistencies. Again, the researchers spent time reviewing results and answering questions from the coders. Revisions were made to the codebook to elaborate coding instructions for certain media items.

In the next part of the research, the three coders independently coded the 106 randomly selected stories. Coders did not confer with the researchers or fellow coders, even when they had questions.

Once the coding was completed, the researchers calculated intercoder reliability for the variables involved in the coding project. Intercoder reliability refers to the level of agreement among coders when coding a corpus of messages using the same coding instructions and or codebook (Wimmer & Dominick, 2014). Although reliability can be calculated in many ways, Krippendorff *alpha* was calculated because it "can be used regardless of the number of observers, levels of measurement, sample sizes, and presence or absence of missing data" (Hayes & Krippendorff, 2007, p. 77). Krippendorff's *alpha* was calculated using a macro (Hayes &

Krippendorff) with version 19 of the Statistical Package for the Social Sciences (SPSS). Krippendorff *alpha* ranges from 0.00 to 1.00, but should not in any way be considered comparable to percentage agreement. Krippendorff (2004) recommends an *alpha* level of at least .80 as a standard, accepting data in situations where.800 > α ≥ .667 "where tentative conclusions are still acceptable," and rejecting data where .667 ≥ α. (p. 241). Krippendorff emphasizes that neither increasing the sample size or increasing the number of coders will increase intercoder reliability.

Following the statistical analysis, the researchers conferred with the coders to review additional stories and discuss items that presented difficulty with the coders. Based upon those in-depth conversations, the researchers refined coding descriptions for item type, other company/brand mention, and citizenship. The final codebook presented in Figure 1 includes all changes.

5. Results

As indicated by results presented in Table 1, Krippendorff *alphas* ranged from a low of .3849 to a high of .9374. Overall, the *alpha*s indicate moderate to high reliability, thereby suggesting a moderate to high level of agreement on the coding decisions made by the three coders.

From 2013 to 2014, *alphas* improved for 11 of the 13 media variables, indicating the importance of robust training, using a codebook with clear coding instructions, and employing experienced media coders.

Insert Table 1 about here

Not surprisingly, agreement was high for three of the basic, straightforward items in the media analysis project. For example, prominence (whether the first Wal-Mart mention was in the headline, first paragraph, or other paragraphs) had an *alpha* of .9374, shared/sole mention (whether there is a mention of other retail companies in addition to Wal-Mart) had an *alpha* of .8759, and media type (whether the story was a print, online, wire, radio/TV broadcast, or a blog) had an *alpha* of .8116. It was also encouraging that two of the corporate reputation messages—workplace environment and quality of leadership/management—had high *alphas*, .8652 and .8403 respectively. When coding these two items, coders had three choices to select from: no message, positive, or negative. However, because the messages were not verbatim from one story to the next, coding of this variable required interpretation on behalf of the coders.

Sentiment when measured on a five-point had a moderate to high *alpha*, .6775. This indicates that the coders had a mid- to high-level of agreement in terms of coding a story from a latent point of view, which involved interpreting whether the overall attitude about Wal-Mart in the story was very positive, positive, neutral, negative, or very negative. Given that the researcher clarified the coding instructions of sentiment in the codebook and that they spent a fair amount of time training coders how to code for sentiment, the researchers were pleased to see that this year's results improved from .1746 in 2013 to .6775 in 2014. Moreover, when the five-point sentiment scale was collapsed to a three-point scale, the *alpha* increased to .796.

Surprisingly, the experienced coders had low agreement for three media items: (1) item type (*alpha* = .3682), (2) other company/brand mention (*alpha* = .3854) and (3) the citizenship corporate reputational message (*alpha* = .3849). Due to these low scores, the researchers combed through the details of the results to determine areas of coding confusion. Researchers next selected three stories from the corpus of 106 stories to review in detail with the coders to better understand the thought process for the coding decisions of item type, other company/brand mention, and the citizenship corporate reputation message. Once the researchers better understood how and why the coders disagreed on these media items, the researchers went back to the codebook to clarify the coding instructions for these three items.

For item type, coders were originally instructed to code whether a story was best characterized as corporate news, product news, column/opinion to the editor, interview, editorial, feature, or round-up. Out of 106 coding decision, coders disagreed 38 times regarding whether a story was corporate news or a round-up and they disagreed ten times whether a story was best characterized as corporate news or product news.

To improve the codebook, the researchers added some additional description of corporate news, product news, and round-up. For example, they added that when coding for a round-up story or industry overview, "the target company/organization would be mentioned only as an example, not as the sole focus of the item" and for product news they bolded key terms such as "**target company/organization branded** products or services, such as **marketing programs or campaigns** (among others listed in the codebook).

Coders explained to the researchers that they had some difficulty determining whether a company/brand mention was prominent enough to warrant a "sharing of the story." To alleviate this confusion, the researchers changed the coding instructions to: "Is there a mention of other organizations, government bodies, companies or brands (non-retail) as a subject or driver of the story (as opposed to offering comment or analysis)? For example, a company or organization from another industry sector which is being discussed in the same context as Walmart or being compared to Walmart. Or, a government entity imposing or enforcing regulatory action on Walmart, and possibly others in the same category. Other company/organization mention is quite common in the news media. Such a mention should be coded when it is prominent and relevant (e.g. pertinent to understanding the full item and its meaning or impact)."

Conversations with the coders regarding the citizenship corporate reputation message indicated that coders had difficulty differentiating whether a company's CSR activities were implied or explicit in a media story. There was also some confusion regarding whether consumer social media contests were indicative of corporate citizenship. Therefore, to clarify the confusion regarding the citizenship corporate reputation message, the researchers rewrote the coding instructions to the following: "Behavior is/is not socially responsible; does/does not support good causes, contribute/commit to the community beyond selling products; CSR is specific to initiatives or goals that the company has set forward, not solely implied as part of good management. Examples include philanthropic donations, employee volunteerism, community relations involvement, cause-related marketing and cause promotions. A program to engage customers/prospective customers via crowdsourcing or participation in events such as competitions, photo submissions, social media, etc. is not CSR."

The final codebook (see Figure 1) has undergone 14 iterations since this study was initiated in spring 2012. Revisions have been based upon four pre-tests, two coding projects, and two-follow-up discussions with different coders. Examples of how to code for media items are contained in the sample story contained in Figure 2. Commentary is offered in the footnotes of the sample story to identify the elements for coding and to explain the logic of the coding decisions.

Insert Figure 2 about here

6. Discussion and Conclusions

This research has a number of implications essential to the practice of media analysis, remembering that the main objective of standardization is to ensure quality data and comparability of data. First, this research indicates that coding for the metrics as defined by the standards of traditional media analysis—and operationalized in the codebook—is reliable, provided that the coders have a well-developed codebook and sufficient training. Ten of the thirteen media items had moderate to high *alphas*, indicating that the three coders were in agreement the majority of the time. Three of the thirteen items—item type, other company/brand mention, and the citizenship corporate reputational message—had low *alphas*. However, based upon a follow-up meeting with the coders, the researchers were able to clarify the coding instructions for these three items to address some of the coding confusion. The researchers are cautiously optimistic that, based upon these codebook enhancements, coding reliability will improve for these three items in future media analysis projects. Moreover, the stories coded in this research project were fairly substantive, because each story had at least three mentions of Wal-Mart. Some coding projects may involve shorter and perhaps, even more straightforward stories. Therefore, the reliability of coding projects involving less substantive stories might be even higher.

As noted earlier, the 2013 (Eisenmann et al.) study had low to moderate intercoder reliability among the three inexperienced coders. Results of this 2013 study raised the key question of whether some of the standards such as sentiment/tone and corporate reputational messages needed revision or whether the coders lacked sufficient experience and training to code with reliability. The answer to that question is likely a combination of all three. The much improved results of this 2014 study are likely due to greater and improved training, using experienced coders, and clarifying and including more detailed coding decisions for the traditional media metrics in the codebook.

This study indicates the importance of sound training, a well-developed and tested codebook, and the use of Krippendorff's *alpha* as best practices. Human coders need to be carefully trained and ideally have some knowledge of the subject area. In this study, the researchers were a bit surprised that the original plan for one training session with the experienced coders was not sufficient and that an additional training was needed, an indication of the importance of robust training as a best practice. Regardless of the level of coder experience, two rounds of pretests are ideal when initiating a new media analysis project.

It is also important to set realistic expectations with clients, in regards to the time and training needed to secure reliable results. The level of detail needed in a coding project depends upon the client or organizational objectives. Public relations project managers can utilize the codebook to decide coding elements are needed to provide insights so as to not over-complicate the codebook with any unnecessary detail, which could impact reliability. Moreover, measurement agencies and firms should use Krippendorff's *alpha* as part of their training and quality management processes. Clients should expect that agencies and measurement firms provide results of the inter-observer agreement testing.

This study raises important questions about the media analysis training process. In practice, a quality control system should be implemented to systematically check on intercoder reliability and provide ongoing feedback. Using one coder regularly may deliver the most reliable results, but may not be a realistic long-term approach. This study raises important questions about this quality control process. For example, should a project manager of a large media coding project review 10% of coders' stories? Should coders confer after 25 stories? How often should coders be trained? How many stories should be coded as part of the training process? How much disagreement will be tolerated in the training process? Future research might build upon this study to test for the effects of training to better understand best practices.

With respect to relationships between client organizations and measurement teams, clients should not cherry-pick cases where they disagree with the coding of a specific item. This will not improve reliability. Rather, they should provide feedback that can be incorporated into codebook revisions and ongoing training of the coders.

Another key question related to best practices is to determine how many stories should be coded on behalf of a client or organization. The scope of a coding project will be determined by multiple factors, including project objectives, budget, and organizational or client background. For example, when coding stories about the presence of a company like Wal-Mart, it may be best to code more stories to fully capture the range of publications and activities.

Practitioners must also decide whether to code sentiment on a three-point scale (positive, neutral, negative) or a five-point scale (very positive, positive, neutral, negative, very negative). As indicated by the results, *alpha* for the three-point scale was high, .796, whereas the *alpha* for the five-point scale was moderate to high, .675. It may be that when testing for inter-observer agreement, seeking a .796 on the three-point scale is the gold standard, but that practitioners may need to review some project results on the 5-point sentiment scale to discern finer differences.

In summary, this research has helped to validate the proposed standards for traditional media analysis. Public relations practitioners can use and amend the detailed codebook for their specific purposes and borrow from some of the recommended best practices, including training and systematic quality control and feedback. As more practitioners continue to adopt and use the proposed standards, the coding instructions in the codebook can be revised and elaborated. Moving forward, the researchers recommend submitting the same set of stories to one or more automated sentiment scoring companies. Comparing the reliability of stories coded by humans compared to automated sentiment scoring would provide a comparison of the reliability of the two approaches.

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Figure 1: *Media Codebook Based Upon Proposed Standards*

2013 Standards Testing: Guide to Database Coding

The goal of this project is to test the Proposed Interim Standards for Traditional Media Analysis. To do that we will test code a batch of articles using the methodology proposed in the standards.

The topic chosen for analysis is Wal-Mart. Items for testing were sourced from Factiva based on the following:

For print, online, wires and broadcast: Used Factiva's pre-set list Major News and Business Publications in the US. Capture 3+ mentions of Wal-Mart for a one year period, July 7, 2011-July 6, 2012. We will then selected every 7th story to yield a sample of about 100 items.

For Blogs: Used Factiva's new blog lists called Business Strategy Classification. Capture 3+ mentions of Wal-Mart for a one year period -July 7, 2011-July 6, 2012. As the volume was low, (partially because this is a new feature on Factiva), we did not use the 'every nth item' approach.

To qualify for the study, each item must meet the following criteria:

- Mention Wal-Mart at least 3 times
- Appear in an item dated between July 7, 2011-July 6, 2012
- It has passed through some form of "editorial filter," i.e. a person has made a decision to run or not run the story. While not classified as traditional media, in practice coverage in blogs is also included in media analysis. Therefore, we will be including blogs here too, particularly as they are more likely to relay sentiment, which is one of the standards we want to test.

Coders: in practice it is quite common for coders to confer with each other when any questions or issues arise. However, this is a test to see if applying the standards can generate consistent outcomes. Therefore, please do not confer with each other, but select the best possible option based on the briefing and what is described in the coding instructions below.

Variable	Methodology	Data Entry	Data Review/ Clean-up	Notes
ArticleID	Each item entered should have its own ID number. Enter that here. If there are several coders each should be giver a range of numbers to represent their batch.	Enter unique article ID number here.	Check for duplicate numbers	Each record must have an unique number. Start with 100 so that each article in the batch is assigned a number, even if it is not coded.
STANDARDS TEST: Does the item meet the criteria for a 'media hit':	All items must at least meet the core criteria of 3 or more mentions of Wal-Mart and occur in the date range July 7, 2011-July 6, 2012. Not all items appearing in the media count as a 'hit' for PR evaluation purposes. The criteria for each type of media is outlined below. **Wire stories:** each media outlet running a wire story counts as a separate 'hit' because it has different readership. If the wire story is updated multiple times in one day, only count it once in a 24-hour period using the latest, most updated version. [Coders on this project may not be able to identify which is the most updated version until all articles have been coded]. Wire stories themselves also count as a hit, although, per below, no impressions are assigned. **Article appearing in both the online and print version:** both articles should be counted because the readership is different for each channel. Note, when coverage for analysis is captured using Factiva an online story will include a URL. **Press release pickups generated from 'controlled vehicles' such as posting a story on PR Newswire or Business Newswire:** Do not count as a "hit". These numbers generally come from the vendors reports and are therefore easily identified. Wire services like DJ, AP, Reuters, etc. are NOT controlled vehicles. Items appearing from those wires count as a hit. **Reprints or syndication:** count as a hit because they appear in unique, individual media titles with different readership. **Company bylined features:** count as an article **Blog:** whether affiliated with a media outlet or independently operated will count as a hit for purposes of this study. Note, when coverage for analysis is captured using Factiva an online story will include a URL. Although they are not officially traditional media, they are influential and are regularly included in media content analysis. In some cases the coder will not be able to make this assessment when they selecting a single article for coding. Some of these, such as the most updated wire story, will need to be assessed after the batch has been coded. Therefore this standard will have to be applied in the clean-up and review phase of the analysis. For purposes of this test, each coder will be asked to review their batch to ensure that all articles coded meet the standard. Coders: please remove unqualified rows from the data and include them on a separate worksheet. We will still need the documentation.	0=Yes (this would mean as best you can tell, it counts as a hit. It is possible that as we review the data in its entirety we may see that an item should be deleted e.g. two wire stories on the same day/topic.) 1=No If the article does not meet the criteria, do not code further.		

Variable	Methodology	Data Entry	Data Review/ Clean-up	Notes
Media Type:*	Item can be either **Print, Online, Wire, Broadcast or Blog**. Note: A **wire service** includes Dow Jones (DJ), Associated Press (AP), Reuters, United Press International (UPI), etc. Individual media organizations subscribe to a wire service in order to use their reporting in their own outlet. **Online** includes the online version of a print outlet [e.g. WSJ.com, NYT.com] or a stand alone online outlet [e.g. huffingtonpost.com]. **Broadcast** includes TV and radio and for this project would be in the form of transcripts captured through Factiva as it is not possible to capture broadcast retrospectively. **Blog** is news or opinion expressed in the post on an individual or organization-owned blog (weblog).	0=Not sure 1=Print 2=Online (includes the online version of a print publication) 3=Wire 4=Radio/TV broadcast 5=Blog	Check for consistency and omissions	Each record must have an unique number.
Outlet Title:	Title of media outlet [use sentence case - upper and lower case letters]	Enter media title or broadcast show name. Online media and blog items are listed by their URL: for example, the Austin American-Statesman is listed as Statesman.com. Be consistent, for example, use Boston Globe vs. The Boston Globe. Other media should be listed be their official title.	Check for blank fields and inconsistency in title entry.	
Byline	The reporter, or other author, attributed to a news item	First Name and Last Name e.g. Michael Jackson 0=no byline		
Date:	If a monthly magazine, please use the first day of the month. mm/dd/yy	Entries should be consistent mm/dd/yy	Check for blank fields Scan for incorrect dates (transposed month/day entries, etc.)	
Headline:	OPTIONAL - this is not part of the standards test or basic coding, but it is common in practice and we use it often to give us quick insights.	If there is a headline or title to the piece of any kind, enter here. If the article has no headline, please include a subhead or something to help us identify which article on the page and possibly give a bit of insight as to the article topic. Broadcast segments need some kind of topic noted if there is not a "headline" to the piece. Recommend you just cut and paste to ensure accuracy. 0=no headline	Check for blank fields	This is optional for the standards testing, but we find it a very useful entry.
STANDARDS TEST: Impressions:	**Print:** impressions based on circulation e.g. "number of copies of a publication as distributed " through paid and free distribution, based on figures such as those provided by the publication. Multipliers should not be used. **Online:** impressions are based on the daily viewers. To get this number, divide the number of unique visitors per month(UVPM) [available at Compete.com] by the number of days in the month to get the number of daily viewers. Should be based on the unique URL or sub-domain for the item. For online media whose visitor numbers are small enough not to be included on Compete use 500 (50% of the lowest visitor number on Compete). Free Compete data only goes back one year. For articles more than one year old, please use the data from next closest month. For example, for an item appearing in SmartMoney Blogs on Jan 3, 2012, paste the url into the Compete.com search box and select the UVPM for January. Divide by 30. Note Compete will only give the UVPM for the blog, not the specific post. **Broadcast:** organizations are advised to use the numbers distributed by the broadcast monitoring service provider or go to TVbytheNumbers.com. **Wires:** no impressions are assigned, but they count as a "hit". Again this could be DJ, AP, API, UPI, Reuters, etc **Blog:** similar to online media, impressions are based on the daily viewers. Use Compete.com to capture the (UVPM). Paste the URL into the Compete tool to get the UVPM, then divide by 30 to get the daily readership.	Enter the number as sourced. Wires = 0. If NA use 0. Wire services are not assigned impressions because they are not distributed/generally available to the public, but rather accessed directly by media which convey the news to the public via their own channels.	Check for consistency and that it makes sense	Broadcast for this project is sourced through Factiva transcripts, so unless they include readership, it will be impossible to provide impressions.

Variable	Methodology	Data Entry	Data Review/ Clean-up	Notes
Item Type*	**Corporate News:** Coverage of current or timely company/organization events/issues not directly related to products or services (e.g., quarterly earnings/results and other financial news, alliances, executive appointments and other management news, union actions, employee relations, philanthropy/CSR, etc). **Round-up story or Industry overview:** Coverage in a discussion of industry-wide events, issues or themes not specific to a single organization, partnership or alliance. Target company/organization would be mentioned only as an example, not as the sole focus of the item. **Product News:** Coverage focused on target company/organization branded products or services (e.g., product reviews/comparisons, new product launches/introductions, marketing programs or campaigns, pricing changes, product-specific marketing initiatives, etc.). **Column/Opinion/Letter-to-the-Editor:** Column: A bylined, regularly scheduled advice, review, opinion, gossip or humor item. Opinion Piece: A stand-alone, bylined item advancing a personal opinion rather than reporting news or facts. Letter-to-the-Editor: Typically appears on the Op-Ed page of a print publication. The latter two are more likely to contain emotive language. **Interview:** Q&A featuring a company representative or mentioning a company. **Editorial:** A statement collectively authored by the editorial board of a news organization expressing an official position on an issue (typically appear on the Editorial Page of a print publication). **Feature:** Extensive coverage profiling an organization or topic covering multiple facets. Usually some historic perspective which could include products, events, legacy, leadership, partnerships, financial status, strategy/direction, employees/constituencies, etc. Typical feature would be 3+ pages in a word document.	0=not sure 1=Corporate News 2=Round-up/Industry Overview 3=Product News 4=Column/Opinion/Letter-to-the-Editor 5=Interview 6=Editorial 7=Feature		
STANDARDS TEST: * Sentiment/Tone:	The overall "attitude" conveyed in a news item toward an organization, in this case Wal-Mart, rated on a 5-point scale. Sentiment ratings are not based solely on the inherent positivity or negativity of an event, topic or issue (e.g., a product recall, contract win, etc.) but on how the reporter chooses to communicate the news as well. Negative news item reported in a factual manner can be neutral. Similarly, an article with both negative and positive facts can present a balanced profile which would be considered neutral overall. The goal of Sentiment ratings is to assess how a news item might influence a reader/viewer's perceptions of an organization and, as a result, their decision about doing business with the organization – e.g., buy or recommend its products, purchase its stock, enter into alliances/partnerships, etc. Based on the overall tone of the entire article and calculated on a five point scale - very positive, somewhat positive, neutral, somewhat negative and very negative TOWARD WALMART specifically. Tone is not being assessed for any of the other organizations mentioned in the item. **Positive:** reader more likely to support, recommend, and/or work or do business with the brand after reading **Negative:** reader less likely to support, and/work or do business with the brand after reading **Neutral:** just reports the facts, unqualified by praise, criticism, even if they are negative OR is mixed, containing both positive and negative facts - balancing out the perspective - without indicating bias. **Very positive/very negative:** these are the extreme, exhibiting strong bias, and are likely to be rare in mainstream top-tier media outside of editorial, letters to the editor (LTE). Blogs are more likely to express stronger sentiment. A very positive or very negative piece is unlikely to contain any strong balancing messages relevant to the topic. [e.g. a headline Wal-Mart Changed the World with multiple positive messages and just one negative message would be positive, but not likely to be very positive if there is a strong, tempering/relevant, negative message]. Moreover, the focus of the story can temper the degree of negativity or positivity. For example, if very negative or very positive messages about Walmart constitute only a small percentage of a broader round-up story focused on multiple companies (therefore tempering the sentiment), the story, in turn, would be coded negative/positive, not very negative/very positive.	0=Very negative 1=Negative 2=Neutral 3=Positive 4=Very positive		Sentiment should be coded based on the perspective of the average reader. Positive - An item leaves the reader more likely to support, recommend, and/or work or do business with the brand. Negative - An item leaves the reader less likely to support, and/work or do business with the brand Neutral - An item contains no sentiment at all, just reports the facts. If the news is negative, an article can be neutral if it just reports the facts, without any editorial commentary. In an unfavorable environment, neutral may be the best that can be achieved.
STANDARDS TEST: Quality Measures				
Prominence*	Where is the **first** Wal-Mart mention in the story?	0=Headline 1=First Paragraph 2=Other paragraphs (not the first)		Helps understand how much of the story deals with target company
Dominance	How many times is Wal-Mart mentioned in the story? This includes nicknames, such as Wally World, and mentions in a photo caption, headline, chart, link to website within the editorial, or mention in URL, etc. This should be entered regardless of whether the story is negative, positive or neutral. Coder must count the number of mentions in the story. Note: in this project the dominance will be somewhat skewed because of the methodology (items must mention Wal-Mart 3 or more times to be included). Recommend using the key word search feature as opposed to counting by hand to improve accuracy.	Enter the number of mentions. Do not include mentions such as "the company" which do not specifically name the brand. DO include company name mentioned in website address or other URL.		Helps understand how much of the story deals with target company

Variable	Methodology	Data Entry	Data Review/ Clean-up	Notes
Visual*	Inclusion of any chart, graph, logo, photo or other image that conveys a company 'presence' in the news item is coded, even if the story itself is negative. For the purposes of this project, only use the full-text version of the article from Factiva, do not click-thru to the link. Rely on the Factiva notation for visuals at the end of the article for information on visuals.	0=Yes 1=No		
Shared/Sole Mention*	Are other retail companies/competitors also mentioned in the story or just Wal-Mart? If so, this is a shared mention. If Wal-Mart is the ONLY retail company mentioned in the item, it is a sole mention. Any other company mention must be substantive, for example, a direct comparison to Wal-Mart in the retail space, not a mere passing mention.	0=Yes, Shared (other retail companies/competitors are mentioned) 1=No, Sole (Wal-Mart is the only retailer mentioned)		The purpose of this entry is to understand the likelihood of the reader recalling Wal-Mart. If there are other companies mentioned in the item, the reader may be less likely to remember Wal-Mart.
If shared (above), with whom	Which other retail competitors are mentioned in the story? **Please enter in the order in which they appear.**	If the entry in the previous column is "SHARED" enter the competitor company name in this column - up to three competitors in the available columns. Please enter in the order in which they appear. 0=no competitor mentions	check for consistency	
Other Company/ Brand/Organization Mention*	Is there a mention of other **organizations, government bodies, companies or brands (non-retail)** as a subject or driver of the story (as opposed to offering comment or analysis)? For example, a company or organization from another industry sector which is being discussed in the same context as Walmart or being compared to Walmart. Or, a government entity imposing or enforcing regulatory action on Walmart, and possibly others in the same category. Other company/organization mention is quite common in the news media. Such a mention should be coded when it is prominent and relevant (e.g. pertinent to understanding the full item and its meaning or impact).	0=Yes, other organizations/ government bodies/companies/brands - non-retail- are mentioned as a subject of the story. 1=No		Mentions of other brands or companies, not just competitors, will minimize the Wal-Mart mention and detract from what is remembered.
Third party quoted*	Is a third party organization or notable/influential individual directly quoted [in quotation marks] either criticizing or endorsing Wal-Mart. This would include a credible analyst or advocacy grp or individual who has some level of knowledge or authority to comment, not an average consumer. Enter name/affiliation/title of the FIRST third party mentioned.	Enter the name and the affiliation/title of the FIRST third party directly quoted [as in quotation marks] in the article in this column 0=no third party quote		
	If a third party is quoted, are they supportive/unsupportive?	0= No 3rd party quoted 1= Unsupportive 2= Neutral, neither supportive or unsupportive 3= Supportive		
Company Spokesperson	Is a **named** Wal-Mart company spokesperson/executive directly quoted [in quotation marks] in the article speaking on behalf of Wal-Mart for the specific item [not reported second hand]? Does not need to be labeled as spokes person [e.g. Sue Jones, Walmart's Director of HR said, "….."] If the Wal-Mart spokesperson is **UNNAMED** count that as NO SPOKESPERSON and enter 0.	Enter the name of the quoted spokesperson/executive in this column 0=no spokesperson quote or UNNAMED spokesperson		
Corporate Reputation Messages: Clear and apparent editorial positioning of a company favorably or unfavorably on the core reputation drivers. Presence of a reputation driver will be prominent in the article, a strong mention – not a mere passing or minor mention, but a discussion that will influence the perception of the reader and/or their desire or intent to do business with the organization. The message should be explicit in the content, not implied or assumed based on the actual content. Coders should note that not all items will have reputation messages. In fact, many will not include them. This is a quality measure and we are only looking for a clearly positive or negative mention of each driver. Code messages for Wal-Mart only, not any of the competitors.				
MESSAGE: Financial Soundness*	Strength/weakness of capital structure, cost control, financial history, profitability, revenue growth, stock performance. Example would be an item on improved revenues due increased market share vs. item on declining earnings due to rising oil prices.	0=No message 1=Negative 2=Positive		
MESSAGE: Quality of Leadership/ Management*	Thought Leader, CEO and management does/does not demonstrate strength and vision, is/is not responsible/ethical, strong/weak corp culture. Message is specific to overall management quality and can have multiple indicators/is not driven solely by one single factor like CSR. Example would be item on company turnaround due to management reaction after period of decline vs. item on company's future threatened due to lack of succession planning.	0=No message 1=Negative 2=Positive		
MESSAGE: Innovation	Does/does not have innovative/cutting edge products; is/is not standard-setter, committed to R&D. Innovation message must be clear and present, not implied, and separate from quality of products and services. Example would be item on expected approval for a pipeline drug with a new delivery system vs. a company losing share/revenue due to patent expirations and no/failed pipeline investment/prospects.	0=No message 1=Negative 2=Positive		
MESSAGE: Workplace environment*	Good/bad perception of organization as an employer, good/bad place to work/work environment. Example would be item on company receiving award for good place to work vs. litigation against company for employee discrimination.	0=No message 1=Negative 2=Positive		

Variable	Methodology	Data Entry	Data Review/ Clean-up	Notes
MESSAGE: Quality of products or services*	As compared to competitor products/services, does/does not match branding & communications claims, does/does not meet/exceed expectations, good/bad value, does it work/not work, safe/unsafe; implies a happy/unhappy end user; is about the experience with the product or service, distinct from innovation level of the product; perhaps contains statement or quote from consumer, trade group, advocacy organization or business partner. Example would be an item on delicious low cal drink option that tastes as good as full calorie version vs. low calorie drink contains cancer causing artificial sweeteners.	0=No message 1=Negative 2=Positive		
MESSAGE: Citizenship* CSR = Corporate Social Responsibility	Behavior is/is not socially responsible; does/does not support good causes, contribute/commit to the community beyond selling products; CSR is specific to initiatives or goals that the company has set forward, not solely implied as part of good management. Examples include philanthropic donations, employee volunteerism, community relations involvement, cause-related marketing and cause promotions. A program to engage customers/prospective customers via crowdsourcing or participation in events such as competitions, photo submissions, social media, etc. is not CSR.	0=No message 1=Negative 2=Positive		
Coverage Driver	OPTIONAL - this is not part of the standards test or basic coding, but it is common in practice and we use it often as part of the analysis.	Enter the leading topic or driver of the story. Coders may want to align on a set list of 5 or 6 topics after having reviewed a few articles i.e. corruption, industry trends, employee relations, financial, etc. 0=no driver	Check for consistency within topics. Can be left blank.	Drivers are basically tags to help identify issues within the coverage, and can be edited, refined, and consolidated as needed.

**represents the variables for which we calculated Krippendorff's Alpha*

Table 1: *Krippendorff Alpha Results*

Media Variables	Coding Operationalization	Krippendorff's *Alpha (*2013)	Krippendorff's *Alpha* (2014)
Media Type	0=Not sure 1=Print 2=Online (includes the online version of a print) 3=Wire 4=Radio/TV broadcast 5=Blog	.6952	.8116
Item Type	0=Not sure 1=Corporate News 2=Round up/Industry Overview 3 = Product news 4=Column/Opinion/Letter-to-the-Editor 5=Interview 6=Editorial 7=Feature	.3589	.3682
Sentiment/Overall Tone	0=Very negative 1=Negative 2=Neutral 3=Positive 4=Very positive	.1746	.6775 .796 when using a 3-point scale [i]
Prominence	Where is the Wal-Mart mention? 0=Headline 1=First Paragraph 2=Other paragraphs (not the first)	.9347	.9374
Shared/Sole Mention	Is there a mention of other retail companies in the story in addition to Wal-Mart 0=Yes 1=No	.6629	.8759
Other Company/ Brand Mention	Is there a mention of Other Company/ Brand/ Organization Mention (non-retail) in the story 0=Yes, shared 1=No, not shared	.195	.3854
3rd Party Quoted	0= No 3rd party quoted 1= Unsupportive 2= Neutral, neither supportive or unsupportive 3= Supportive	.3919	.5952
Corporate Reputation Messages	Financial Soundness 0=No message 1=Negative 2=Positive	.262	.6448
Corporate Reputation Messages	Quality of Leadership/Management 0=No message 1=Negative 2=Positive	.4091	.8403
Corporate Reputation Messages	Innovation 0=No message 1=Negative 2=Positive	.5901	.5132
Corporate Reputation Messages	Workplace environment 0=No message 1=Negative 2=Positive	.3892	.8652
Corporate Reputation Messages	Quality of products or services 0=No message 1=Negative 2=Positive	.4096	.5244
Corporate Reputation Messages	Citizenship 0=No message 1=Positive 2=Negative	.4342	.3849

[i] Alpha was also run for sentiment after collapsing the five-point sentiment scale to a three-point scale (positive, neutral, and negative)

Figure 2: *Sample Item for Analysis*

THE BOTTOM LINE[ii]
Business[iii]
Move to oust Walmart CEO grows amid bribery, cover-up reports[iv]
Andrew S. Ross[v]
24 May 2012
The San Francisco Chronicle[vi]
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More blows from the West have been raining down on Walmart ahead of what is likely to be a contentious annual shareholders meeting next week.

The California Public Employees' Retirement System,[viii] which has 7.7 million shares in the world's largest retailer, said Wednesday that it will be voting to oust CEO Michael Duke and eight other directors, including venture capitalist James Breyer of Menlo Park's Accel Partners. The reason: CalPERS thinks they're unfit to be part of an investigation into allegations of bribery and a cover-up relating to Walmart's Mexico subsidiary.

"In our view such an investigation should not be overseen by current members of the board that served in either a board oversight or senior management capacity at the time of the alleged bribery," the nation's largest public pension fund said.[ix]

The announcement comes one day after the California State Teachers' Retirement System, which filed suit this month against Walmart executives and board members for "alleged gross misconduct," said it would vote its 5.3 million shares to remove the company's entire board.

Such opposition has been building since reports emerged last month that senior executives at Walmart in 2005, including Duke, then head of the company's international division, suppressed an internal investigation into $24 million in bribes paid to Mexican officials to speed permits for Walmart stores south of the border.[x]

In addition to a new internal company probe, various criminal and civil investigations, by the U.S. Justice Department and the Securities and Exchange Commission among others, have begun. Matters took another turn last week, when Walmart disclosed in an SEC filing that an internal audit committee was looking into "other alleged crimes or misconduct in connection with foreign subsidiaries."[xi]

San Francisco's Glass Lewis, an influential proxy advisory firm, took note of that development Friday, when it advised those of its 900-plus, mostly institutional clients with Walmart stock to vote against Duke and several directors.

"In regard to Mr. Duke, while we are generally reluctant to recommend voting against current CEOs, we believe the concerns in this case are material enough to warrant such a vote recommendation," the firm said. Unlike CalPERS, the firm recommended an "aye" vote for Breyer.

[ii] ITEM TYPE: This heading implies that the item may be a regular section in the publication or a regularly scheduled column providing advice, review, opinion, gossip or humor. Review of the content will inform the coder. In this case the item is factual reporting without opinion, advice, etc. Therefore, this item should be coded as Corporate News.
[iii] ITEM TYPE: This notation that the item is from the Business section is a hint that this is a Corporate News item. Review of the content will confirm this.
[iv] HEADLINE: Walmart mention in headline; PROMINENCE: The first Walmart mention is in the headline
[v] BYLINE: Andrew Ross
[vi] OUTLET TITLE: The San Francisco Chronicle
[vii] MEDIA TYPE: This item was sourced from Factiva and in the absence of any online link, blog URL, etc. is assumed to be from the print version of the outlet.
[viii] OTHER COMPANY/BRAND/ORGANIZATION MENTION: CalPERS is a non-retail organization whose action is driving the story (not offering commentary or analysis) and whose mention is both prominent and relevant.
[ix] THIRD PARTY QUOTED: CalPERS (the nation's largest public pension fund) is a relevant third party organization directly quoted (in quotation marks). SUPPORTIVE/UNSUPPORTIVE: Third party quoted, CalPERS, is unsupportive of Walmart.
[x] CORPORATE REPUTATION MESSAGE: Quality of Leadership/Management -- Negative, management does not demonstrate responsible, ethical behavior.
[xi] SENTIMENT/TONE: Negative -- These few paragraphs all deliver negative messages about the behavior of Walmart. They exhibit strong negative bias toward Walmart. The average reader would be less likely to want to do business with Walmart, based on the facts presented in this story.

On Saturday, another major proxy advisory firm, ISS of Rockville, Md., made similar recommendations to its 1,700 clients, saying the reports of bribery and cover-up are "troubling."

Troubling enough for shareholders to oust a sitting CEO, when the votes are counted on June 1? Coming off a boffo first quarter, with $3.7 billion in earnings and sales on the rebound, Walmart's stock, which was sinking like a stone as the investigations mounted, closed Wednesday at $64.58, reaching heights the company hasn't seen in 10 years.[xii]

Perhaps not the best time, some might think, to rock the boat further. That would include the Walton family, which controls approximately 50 percent of the stock.

Consolation prizes: Another local setback, albeit smaller, occurred Tuesday night when the Hayward City Council rejected Walmart's application to open one of its smaller Neighborhood Market stores at a former Circuit City site, which has been empty for three years.[xiii]

But fans of Walmart will be pleased to know that Pleasanton gave the go-ahead last week for a Neighborhood Market at a former Nob Hill grocery location. And construction is proceeding apace for a Walmart market at Country Club Village Shopping Center in San Ramon and one at the Westgate Shopping Center in San Jose.[xiv]

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[xii] SENTIMENT/TONE: This statement about share price strength helps to balance the negative messages in the previous paragraphs and prevents the item from being coded as Very Negative. It is only negative. CORPORATE REPUTATION MESSAGE: Financial Soundness – Positive, strong share price indicates positive financial performance and serves to provide some balance to the negative leadership message.

[xiii] SENTIMENT/TONE: This negative message is balanced by the opposite positive message in the next paragraph.

[xiv] DOMINANCE: Walmart is mentioned 12 times in this story.

[xv] ITEM TYPE: This could be confused to be a blog as opposed to a print item, as the URL and contact information of the author appear at the end of this print item.